

Claims

What is claimed is:

1. A method for automatically labeling an image, the method comprising:
 - 5 providing a working image that includes a number of objects;
 - determining label parameters for labels to be associated with at least
 some of the objects;
 - placing a first label in the working image when one of the objects is
 selected;
 - 10 placing a second label in the working image when another one of the
 objects is selected, wherein the second label is automatically
 generated in accordance with the label parameters, and the
 second label is different from the first label by an increment.
- 15 2. The method of claim 1, wherein the placing of the first label and in the
 working image includes placing automatically a tracing line between the
 first label and the one of the objects to indicate a visual association
 therebetween, and wherein the placing of the second label in the
 working image includes placing automatically a tracing line between the
20 second label and the another one of the objects to indicate a visual
 association therebetween.
3. The method of claim 2, wherein the working image is generated from the
 image and placed in a canvas for the labels.

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4. The method of claim 2, wherein the working image is an image layer in a plurality of layers, one of the layers being designated for the first and second labels.
- 5 5. The method of claim 4, wherein one of the layers is considered as a base layer being larger in size than that of the working image.
6. The method of claim 1, wherein the increment is an offset from one label to another such that no two labels used in the working image are
10 identical.
7. The method of claim 1, wherein one of the label parameters pertains to a style of the labels.
- 15 8. The method of claim 7, wherein the style determines one or more of fonts, sizes, shapes, boundaries or transparency of the labels.
9. The method of claim 1, wherein one of the labels is associated with an annotation box in which a user can type in texts.
- 20 10. The method of claim 1 further including resetting the label parameters; and causing the labels that have been placed in the working image to change in accordance with the label parameters.
- 25 11. The method of claim 10, wherein each of the labels includes a set of digits or characters in a boundary, and further including adjusting a size

of the digits or characters in the boundary, when a number of the digits or characters increases, to maintain a size of the boundary unchanged.

12. The method of claim 1, wherein the working image can be saved in a desired format to embed the first and second labels or in a file that keeps the working image and the labels separately so that further editing to the labels is possible.

13. A method for automatically labeling an image, the method comprising:

providing a graphic environment in which an electronic image is displayed, the graphic environment including a plurality of icons, one of the icons, once activated, providing a working image from the image that includes a number of objects and displaying a number of annotation icons, wherein one of annotation icons facilitating determination of label parameters for labels to be associated with at least some of the objects;

placing a first label in the working image when one of the objects is selected;

placing a second label in the working image when another one of the objects is selected, wherein the second label is automatically generated in accordance with an increment in one of the label parameters;

placing additional labels in the working image when additional ones of the objects are respectively selected, wherein the additional labels are respectively and automatically generated in accordance with the increment with reference to a preceding label thereof; and

saving the working image with the labels placed therein in a predetermined format to embed the labels or in a file that keeps the working image and the labels separately so that further editing to the labels is possible.

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14. The method of claim 13, wherein one of the label parameters pertains to a style of the labels.

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15. The method of claim 14, wherein the style determines one or more of fonts, sizes, shapes, boundaries or transparency of the labels.

16. The method of claim 13, wherein the working image is either a generated version of the image or an image layer in a plurality of layers in which one of the layers is a base layer.

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17. A software product to be executable in a computing device for automatically labeling an image, the software product comprising:

- program code for providing a working image from the image that includes a number of objects;
- program code for determining label parameters for labels to be associated with at least some of the objects;
- program code for placing a first label in the working image when one of the objects is selected;
- program code for placing a second label in the working image when another one of the objects is selected, wherein the second label is automatically generated in accordance with an increment from the first label.

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18. The software product of claim 14, wherein the program code for placing the first label in the captured image includes program code for placing automatically a tracing line between the first label and the one of the objects to indicate a visual association therebetween, and wherein the program code for placing the second label in the captured image includes program code for placing automatically a tracing line between the second label and the another one of the objects to indicate a visual association therebetween.

19. The software product of claim 15, wherein the working image is either a generated version of the image or an image layer in a plurality of layers in which one of the layers is a base layer.

20. The software product of claim 17, wherein the increment is an offset from one label to another such that no two labels used in the working image are identical.

21. The software product of claim 14, wherein one of the label parameters pertains to a style of the labels.

22. The software product of claim 21, wherein the style determines one or more of fonts, sizes, shapes, boundaries or transparency of the labels.

23. The software product of claim 17, wherein one of the labels is associated with an annotation box in which a user can type in texts.

24. The software product of claim 17 further including program code for resetting the label parameters; and causing the labels that have been placed in the working image to change in accordance with the label parameters.

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25. The software product of claim 24, wherein each of the labels includes a set of digits or characters in a boundary, and further including program code for adjusting a size of the digits or characters in the boundary, when a number of the digits or characters increases, to maintain a size of the boundary unchanged.

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26. The software product of claim 17, wherein the working image can be saved in a desired format to embed the first and second labels or in a file that keeps the working image and the labels separately so that further editing to the labels is possible.

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